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THE PLANT DISEASE BULLETIN

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The Plant Disease Survey

VOLUME II. *NUMBER 9.*

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UNITED STATES DEPARTMENT OF AGRICULTURE

CONTENTS

Alfalfa.....140
Crown Wart.....140
Downy Mildew.....140
Leaf Blotch.....140
White Leaf.....140
Apple.....140
Blotch.....140
Blue Mold.....140
Brown Rot.....141
Scab.....141
Apricot.....141
Brown Rot.....141
Scab.....141
Barley.....141
Leaf Disease.....141
Stripe.....142
Cabbage.....142
Black Leg.....142
Black Rot.....142
Club Root.....142
Black Mold.....142
Rot.....143
Yellows.....143
Cantaloupe.....143
Anthracnose.....143
Bacterial Wilt.....143
Leaf Blight.....144
Other Diseases.....144
Eggplant.....144
Fruit Rot.....144
Grape.....145
Crown Gall.....145
Black Rot.....145
Texas Root Rot.....145
Lettuce.....145
Rot.....145
Oats.....145
Smuts.....145
Stem Rust.....146
Leaf Rust.....147
Anthracnose.....147
Blast.....148
Powdery Mildew.....148
Sterility.....148
Onion.....148
Rot.....148
Black Mold.....149
Neck Rot.....149
Peach.....149
Leaf Curl.....149
Scab.....150
Brown Rot.....150
Black Mold.....151
Black Spot.....151
Coryneum Blight.....152
Powdery Mildew.....152
Yellows.....152
Little Peach.....152
Winter Injury.....152
Pear.....153
Fire Blight.....153
Scab.....153
Brown Rot.....153
Plum.....154
Brown Rot.....154
Potato.....154
Late Blight.....154
Early Blight.....154
Black Leg.....155
Stem Rot.....155
Russet Scab.....155
Scab.....155
Rots (Bacterial).....156
Rot (Fusarium).....157
Fusarium Wilt.....158
Other Diseases.....158
Mosaic.....158
Sweet Potato.....159
Stem Rot and Wilt.....159
Foot Rot.....159
Black Rot.....160
White Rust.....160
Leaf Spot (Phyllostiota).....160
Leaf Spot (Septoria).....160
Soft Rot.....160
Other Diseases.....161
Tomato.....161
Fusarium Wilt.....161
Blossom End Rot.....162
Septoria Blight.....163
Bacterial Wilt.....163
Early Blight.....164
Leaf Mold.....164
Mosaic.....164
Sun Scald.....164
Other Diseases.....165
Fruit Rots.....165
Watermelon.....165
Stem End Rot.....165
Fusarium Wilt.....166
Anthracnose.....167
Blossom End Rot.....167

ALFALFA.

Crown Wart caused by Urophlyctis alfalfae.

Oregon: (Owens) This disease is quite prevalent in Jackson County and occurs to a limited extent in Josephine County. Growers think no great damage is done.

Downy Mildew caused by Peronospora trifoliorum.

Montana: (Jennison) Commonly seen but doing no great damage.

Oregon: (Owens) Generally prevalent in Josephine County on irrigated tracts.

Leaf Blotch caused by Pyrenopeziza medicaginis.

Montana: (Jennison) Found in many places upon plants not yet cut for the first time. No significant damage.

White Leaf caused by unfavorable soil conditions (?).

Montana: (Jennison) The prevalence of an alfalfa trouble similar to that described by Crabill (Phyto. 6:91-93) has resulted in many inquiries concerning its nature this season. Areas of greater or less size occur in many fields. Practically every leaf in one whole field was completely etiolated.

APPLE

Blotch caused by Phyllosticta solitaria.

Illinois: (Market inspection at Kansas City, 1 car, July 10.) One-third of Early Harvest variety affected by blotch and three-fourths of Cornell apples affected.

Blue Mold caused by Penicillium expansum.

Michigan: (Market inspection at Chicago, 2 cars, Aug. 7.) Infection in the two cars 5 and 10% respectively, mostly slight.

Brown Rot caused by Sclerotinia cinerea.

Delaware: (Market inspection at Indianapolis, 1 car, July 18.) Brown rot present in all varieties, 7% in Yellow Transparent, 25% in dark red early apples and 15% in light red varieties.

Ohio: (Market inspection at Indianapolis, 1 car, July 6.) An average of 8% brown rot was found, but infection varied from 4 to 30%.

Scab caused by Venturia inaequalis.

Illinois: (Market inspection at Kansas City, Mo., 1 car, July 10.) 5% scab noted in Red June, Yellow Transparent and Early Harvest.

Michigan: (Market inspection at Chicago, 1 car, Aug. 7.) The greater portion of fruit in car showed slight scab spots.

APRICOT

Brown Rot caused by Sclerotinia cinerea.

California: (Market inspection at Chicago and Omaha, 6 cars, July 9-10.) Brown rot very irregularly distributed in the six cars, some showing crates with as high as 75% of contents worthless, others sound.

(Market inspection at New York, 1 car.) Infection noted 3%.

Scab caused by Cladosporium carpophilum.

California: (Market inspection at Chicago, 4 cars, July 9-10.) An occasional apricot scabby in each car.

(Market inspection at New York, 1 car.) Two percent of apricots were affected to the extent of more than one-fourth of surface of fruit.

BARLEY

Leaf Disease caused by Rhynchosporium graminicola.

Oregon: (Barss) Very severe infection in some fields in western Oregon, also, about Corvallis. Not observed in southern counties. Damage in some cases considerable.

Stripe caused by Helminthosporium gramineum.

Colorado: (MacMillan) Prevalent in the vicinity of Greeley, causing loss of about 8%.

Oregon: (Barss) Damage probably not large.

CABBAGE

Black Leg caused by Phoma oleracea.

New York: (Chupp) Occurs sparingly in Cortland and Onandago counties.

South Carolina: (Seal) This disease has been found in all sections of the state and has caused serious losses ranging from 5 to 25%.

Virginia: (Fromme) No records except from home gardens about Blacksburg.

Wisconsin: (Walker in C. & T. News Letter) Very serious in Racine. In some fields 40% of the plants are badly affected.

Black Rot caused by Bacterium campestre.

Pennsylvania: (Orton) Prevalent in Luzerne county and probably abundant over the whole state.

South Carolina: (Seal) Common throughout the state but has caused no serious losses, unless it be during transit.

Virginia: (Fromme) Reported from Henrico county about June 15.

Club Root caused by Plasmodiophora brassicae.

New York: (Chupp) Present in varying amounts on nearly every farm in Cortland and Onandago counties. Sometimes as high as 20%. Average infection 2 1/2 %.

Black Mold caused by Alternaria brassicae.

South Carolina: (Seal) Common on lower leaves of plants but doing no serious damage.

Rot probably caused by Bacillus carotovorus.

Illinois: (Market inspection at Chicago, 2 cars, July 8, Aug. 2.) Decay ranging from 2 to 4 leaves in depth to decay of entire head. In one car this decay was present in advanced stage on 2 to 3% of stock and affected one-fourth of head. 10% of contents slightly decayed in outer leaves.

Louisiana: (Market inspection at Kansas City, 1 car, July 5.) 40% of heads completely decayed, the remainder with outer leaves affected.

Pennsylvania: (Market inspection at New Orleans, 1 car, Aug. 1.) Trimming of 5 leaves required to eliminate decay. This decay was present in all parts of car.

Yellows caused by Fusarium conglutinans.

Colorado: (MacMillan) Severe in some fields about Greeley. General yield reduced about 10%.

New York: (Chupp) Occurs sparingly in Cortland and Onandago counties.

Pennsylvania: (Orton) More or less prevalent in state.

Virginia: (Fromme) Reported from Mecklenburg and Southampton counties. First record June 10.

CANTALOUPE

Reports on the occurrence of diseases received from Colorado, Iowa, Maryland, New Jersey, Tennessee, West Virginia and Wisconsin indicate that the cantaloupe crop this year is in good condition and quite free from disease.

Anthracnose caused by Colletotrichum lagenarium.

Georgia: (Berry) The Honey-dew variety was seriously affected with Anthracnose. Other varieties in the same fields seemed little injured.

Ohio: (Selby) Present but has not been studied this season.

Pennsylvania: (Orton) Reported causing 5% loss in Lancaster County.

Bacterial Wilt caused by Bacillus tracheiphilus

Georgia: (Berry) Bacterial wilt caused considerable damage in south Georgia, especially where cantaloupes followed Irish potatoes.

Iowa: (Melhus) Wilt occurs but is doing little damage to date.

Ohio: (Selby) Very destructive at different points in southern Ohio, notably in Lawrence, and Scioto counties. Specimens received from Barbertown, June 16th.

Pennsylvania: (Orton) Causing serious loss in Lancaster County. Slight infections in Schuylkill, Erie and Luzerne counties.

Tennessee: (Essary) There have been a few reports of wilt.

Leaf Blight caused by Alternaria brassicae.

Maryland: (Temple) Vines show some sun injury and in certain places considerable leaf blight.

New Jersey: (Cook) A number of infections of leaf blight have been reported.

Other Diseases.

California: (Milbrath in C. & T. News Notes No. 17.) Large cantaloupe fields Turlock have been severely injured, due to vascular infection, with losses running from 5 to 75%. The symptoms are similar to wilt diseases, namely, leaf rolling, yellowing of the leaves and vascular browning which is found in the roots and crown chiefly. The vines finally wilt. Watermelons are affected similarly and even more severely.

Maryland: (C. & T. News Notes No. 18.) "We have collected from market gardens near Baltimore, a new or little known type of cantaloupe fruit rot apparently due to species of Fusarium. The fruit shows depressed, irregular areas, sometimes cracks and Fusarium develops as an abundant pink covering and is present in the field before the melons are gathered. It spreads after harvesting and greatly reduces the market value of the fruit. Our inspectors are requested to search in the markets for this disease."

Ohio: (Selby) Fusarium wilt, caused by Fusarium vasinfectum, is widespread in this state.

EGGPLANT

Fruit Rot caused by Phomopsis vexans.

Florida: (Market inspection at Chicago, part of car, July 18.) 15% decay, of which 2/3 was heavy, 1/3 slight.

(Market inspection at Philadelphia, 1 car.) Sixteen percent of eggplant from one-half to entirely decayed.

GRAPES

Crown gall caused by Bacterium tumefaciens.

Oregon: (Owens) Quite prevalent in Josephine County. Among older plants where it has been present for many years the vines are dead or much weakened.

Texas: (Taubenhaus) Crown gall is very serious, causing a loss of about 5%.

Black rot caused by Guignardia bidwellii.

Arkansas: (Elliott) Black rot is the only disease reported this year. It occasions about 2% loss.

Texas: (Taubenhaus) Unimportant this year because of the drought.

Texas root rot caused by Ozonium omnivorum.

Texas: (Taubenhaus) Causing about 10% loss.

LETTUCE

Rot probably caused by Bacillus carotovorus.

Colorado: (Market inspection at Omaha, 1 car, July 13.) Lettuce in very bad condition due to slimy soft rot, the top two layers being completely decayed, and only about half of stock in the bottom layers salable.

Kentucky: (Market inspection at Buffalo, 1 car, May 31.) Every head worthless from slimy soft rot.

New York: (Market inspection at Baltimore, Atlanta, Indianapolis and Pittsburgh, 9 cars, July 13 - Aug. 1.) All heads in three cars affected to a depth of 10 outer leaves, some heads being totally decayed, this decay due to bacteria. In the other cars infection ranged from 40 to 90%, affecting from 10 outer leaves to entire head.

OATS

Loose and covered smuts caused by Ustilago avenae and U. laevis.

Arizona: (Brown) Common in northern Arizona, probably causing a loss of 10%.

Farther south the loss is probably 3 to 4%. Very little seed treatment practiced.

Colorado: (MacMillan) Loose smut causes 12% loss in the neighborhood of Greeley.

Illinois: (Anderson) More complaints than usual this year relative to loss from smut. In some fields where actual counts were made, losses ran as high as 10 to 22%. Average loss about 3%. Seed treatment is not very generally practiced.

Iowa: (Melhus) Oats smuts general and destructive. In bad cases causing 20% loss.

Maine: (Morse) State as a whole probably has considerably less smut than usual, partly due to more general seed treatment. Some fields about Orono show 5 to 15% loss. Fields in Aroostook county seldom show over 2%. The variety "Maine 340" which was originated and distributed by the Maine Experiment Station was reported to be free from smut. This is probably not due to disease resistance, but to the fact that the original seed was freed from smut by treatment. 2000 or more bushels of such seed will be available for distribution in this state the coming year.

Minnesota: (Bisby) Loose and covered smuts have been found in abundance in all oats growing regions in the state.

New Hampshire: (Butler) Loose smut causes slight loss throughout the state in fields grown from untreated seed. Covered smut not found.

North Dakota: (Bolley) The oat crop is probably more free from smut this year than in some previous years, apparently due to drought conditions in June and July. The loss varies greatly, probably amounting to 5 to 10%.

Ohio: (Selby) The relative amount of loss and prevalence both less than in 1917. Loss may amount to 5%.

Oregon: (Owens) Oat smut is generally distributed in the state, causing in some cases a loss of 10%.

Pennsylvania: (Orton) Smuts generally distributed through the state, causing losses varying from 1 to 15%. Greatest losses reported are: Bucks County, 15%; Huntingdon County, 8 to 15%; Greene County, 10 to 35%.

Washington: (Heald) Ustilago laevis is the prevalent oat smut in this state and is increasing rapidly. Percentages up to 30% have been found. Some work on variety resistance has been started and seems to promise good results. Farmers do not now generally treat for this smut.

Wisconsin: (Vaughan) In general the loss from smut is very limited. Some "prize" oats brought in from another state went 40% smut.

Stem rust caused by Puccinia graminis.

Illinois: (Anderson) Relatively unimportant. Of general occurrence this season but rarely causing much damage.

Iowa: (Melhus) Very little.

Minnesota: (Bisby) Found in various portions of the state but doing little damage.

North Dakota: (Bolley) Stem rust is not at all common. No definite observations reported.

Ohio: (Selby) Prevalent to a greater or less extent on oats but under prevailing conditions appears not to be especially injurious.

Pennsylvania: (Orton) Seen only in Center County at State College. Infections slight. Specimens found August 1.

Washington: (Heald) None found.

Wisconsin: (Vaughan) Present but seldom in destructive amounts.

Leaf rust caused by Puccinia coronata.

Arizona: (Brown) Prevalent in northern Arizona but not serious.

Illinois: (Anderson) Generally found but never in great abundance and causing damage only in one or two localities. Some damage done in Lake County west of Lake Forest in oats of rank growth.

Iowa: (Melhus) Very little. Doing little damage.

Minnesota: (Bisby) Found in moderate amounts in several regions but by no means serious.

North Dakota: (Bolley) Common.

Ohio: (Selby) Prevalent but not serious.

Pennsylvania: (Orton) Slight infection generally present. The infection was rarely over 1%.

Washington: (Heald) None found.

Wisconsin: (Vaughan) Widely distributed but destructive only in vicinity of Buckthorn, severely rusted fields observed near Madison and Beloit.

Anthracnose caused by Colletotrichum cereale.

Iowa: (Melhus) Prevalent in central part of state. Damage unknown.

Ohio: (Selby) Generally prevalent throughout northern Ohio. At the Wooster Experiment Station it has been especially marked on the continuous fertilizer oats plots where 20 to 25% of the stalks have been attacked. Loss about 10 to 12%.

Blast (cause unknown).

Iowa: (Melhus) Very prevalent on all varieties of oats.

North Dakota: (Bolley) Considerable complaint and many specimens received showing considerable damage.

Powdery mildew caused by Erysiphe graminis.

Oregon: (Owens) Frequently observed in Benton county in shaded areas where growth is rank.

Sterility (cause unknown).

Pennsylvania: (Orton) Common throughout this state. Huntingdon County reports a loss of 20%; Erie County 10%; Cumberland, Luzerne and Clarion counties 5%.

ONION

Rot probably caused by Bacillus carotovorus.

California: (Market inspection at Chicago and Kansas City, 6 cars, July 8-Aug.7.) In one car inspected at Kansas City 45% of stock was badly decayed, 20% slightly decayed in 1 to 3 outer scales. In cars inspected at Chicago slimy soft rot ranged from 5 to 45%, 30% of onions in one car being a total loss.

Illinois: (Market inspection at Chicago and New York, 12 cars, July 8-Aug. 3.) Average infection 15%, but some cars contained as high as 50% slimy soft rot, mostly slight and affecting one to three outer scales. Two cars inspected showed 5 and 8% infection, half of this being complete decay, the balance slight.

Kentucky: (Market inspection at New York, 2 cars, July 15.) Infection from bacterial decay 1 and 2% respectively.

Louisiana: (Market inspection at New York, 1 car, July 22.) Average infection 39%, some of this decay being total, while other onions were only affected in spots.

Minnesota: (Market inspection at Baltimore and New Orleans, 2 cars, July 23 and Aug. 7.) Bacterial soft rot in the two cars 15 and 40%.

Missouri: (Market inspection at New Orleans, 213 sacks, July 29.) 15% decay, heaviest in yellow onions.

New York: (Market inspection at New York, 1 car, July 13.) In this car only 47 sacks were found which contained only an occasional slimy onion; the remaining sacks varied from 3% decay to complete decay of entire contents.

Black Mold caused by Aspergillus niger.

California: (Market inspection at Chicago and Kansas City, 2 cars, July 10-22.) Black mold affecting 1 to 3 outer scales and occurring mostly in center of sacks.

Illinois: (Market inspection at Chicago and New York, 3 cars, July 8-26.) From 15 to 30% black mold was noted in two cars inspected at Chicago, while 40% infection was found in car examined at New York.

Texas: (Market inspection at Baltimore and Buffalo, 3 cars, June 22 & July 23.) Black mold infection 5, 9 and 32% respectively.

Neck Rot caused by Botrytis sp.

California: (Market inspection at Kansas City, 1 car, Aug. 7.) All onions completely decayed from soft rot and neck rot.

Illinois: (Market inspection at Chicago, 2 cars, July 23.) Average neck rot infection for the two cars 4%.

Kentucky: (Market inspection at New York, 3 cars July 15.) In two cars 5 to 15 onions per sack showed neck rot while the other car showed 2% infection.

PEACH

Leaf Curl caused by Exoascus deformans.

Georgia: (Berry) Occurred generally over the state during the early part of the season. Many home orchards were completely defoliated. Loss amounted to from 5 to 10%.

Illinois: (Anderson) No leaf curl on ten commercial orchards examined. Have not seen it in the state this year.

Iowa: (Melhus) Only a trace.

Ohio: (Selby) Very little in Ohio, owing to winter injury of blossom buds and twigs.

Oregon: (Owens) Present in all counties visited and doing great damage where proper sprays are not applied. Progressive growers are holding it in check.

Pennsylvania: (Orton) Generally prevalent throughout state where dormant spray was not applied. Most severe in Clarion, Butler, Adams and Lehigh counties where over 25% of the foliage was affected.

West Virginia: (Giddings) Apparently much less severe this season than in 1917. First reported on May 16 from Weston.

Scab caused by Cladosporium carpophilum.

Georgia: (Berry) Generally distributed over the state. Practically all peaches found in local markets were badly scabbed. Later in the season the scab was associated with brown rot. The market value of the peach crop raised by the small farmers was probably lowered at least 50%.

(Market inspection at Detroit, Jacksonville and Washington, 3 cars, July 2-10.) In two cars only an occasional scabby peach was found while the other car contained 13% scab.

Illinois: (Anderson) None observed in orchards but quite common on fruit in markets.

Iowa: (Melhus) None found.

Kentucky: (Market inspection at Cincinnati, 1 car, July 29.) Stock more or less spotted with scab.

Ohio: (Selby) Rather prevalent on fruit over eastern third of Ohio. Heath, Solway and other late varieties are very susceptible. Control measures not applied this season.

Pennsylvania: (Orton) Seventy-five to one hundred percent infection in most orchards in Adams County. Cumberland County nearly as bad. 10 to 25% infection in other southeastern counties. Less severe in other sections of the state.

Texas: (Market inspection at Fort Worth and Galveston, 2 cars, July 13-Aug. 7.) Scab covering at least one-fourth of surface was noted on 5% of contents of each car.

Virginia: (Market inspection at Chicago, 1 car, Aug. 7.) From 5 to 10% scab was found in an occasional basket of Elberta peaches.

West Virginia: (Giddings) Far less prevalent this season than in 1917. Doubtless due to small rainfall. First reported June 1 at Summit Point. Excellent control secured with both sulphur-dust and self-boiled lime-sulphur.

Brown Rot caused by Sclerotinia cinerea.

Georgia: (Berry) Very serious. Destroying the entire crop in many home orchards, especially in southern and central Georgia. For the entire state the fruit crop was reduced not less than 25% by this disease.

(Market inspection at Baltimore, Buffalo, Detroit, Jacksonville, Kansas City, New Orleans and Washington, 9 cars and 48 crates, July 2-Aug. 7.) Average infection 25%, in most cars the top layers of crates showing heaviest decay. Brown rot was present in all stages, mostly in early stage in small spots.

Illinois: (Market inspection at Indianapolis, 2 cars, Aug. 16.) Brown rot infection 2 and 8% for the two cars.

Kentucky: (Market inspection at Cincinnati, 1 car, July 29.) Average decay from brown rot 35%, some baskets showing as high as 60% decay in advanced stages.

Maryland: (Market inspection at Baltimore, 4 cars, July 30-Aug. 10.) Decay in the four cars ranged from 6 to 72% with an average of 35%. All stages of decay were noted, ranging from spots one-fourth inch in diameter to half or entire peach decayed.

Missouri: (Market inspection at Buffalo, 2 cars, June 26.) Brown rot infection 2 and 4% respectively.

Oklahoma: (Market inspection at Chicago, 1 car, Aug. 5.) 20% brown rot.

Pennsylvania: (Orton) Peaches are only about half a crop this year but brown rot will reduce this at least 10%. In Dauphin County 50 to 60% of the crop is affected. Cumberland County is nearly as bad, one orchard showing 90% of fruit affected.

(Market inspection at Baltimore, 1 car, Aug. 2.) A large percent of peaches affected with half or entire fruit decayed, some peaches showing brown rot in spots one-fourth inch in diameter; average for the car 24%.

Tennessee: (Market inspection at Milwaukee, 1 car, Aug. 5.) Infection in top two layers of crates 50 to 100%, lower layers 25 to 100%.

West Virginia: (Giddings) Not severe as yet. First reported in July at Summit Point.

Black Mold caused by Rhizopus nigricans.

Georgia: (Market inspection at Detroit, 1 car, July 5.) 15% black mold.

Black Spot caused by Bacterium pruni.

Illinois: (Anderson) Damage not so bad this year as usual. An examination of an orchard in southern Illinois where 50% of the leaves dropped last year shows less than 5% of the leaves falling this season.

Pennsylvania: (Orton) Prevalent in southern and southeastern Pennsylvania, some orchards showing 100% infection with much leaf fall. Very serious in

Adams and Lehigh counties. First appeared July 9 in Adams County.

Coryneum Blight caused by Coryneum beijerinckii.

Oregon: (Owens) Serious in all counties visited, especially on neglected trees.

Utah: (Hill) Present, both as a fruit and leaf infection, but the commercial damage will not be appreciable. Is more serious on apricots than on peaches.

Powdery Mildew caused by Sphaerotheca pannosa.

Oregon: (Owens) Infection found on both shoots and leaves in Benton and Jackson counties. Observed in Corvallis market on boxes of fruit from Salem, Oregon, almost every fruit in the box showing one or more spots.

Yellows

Pennsylvania: (Orton) 1 to 2% of trees throughout the state are affected. Many orchards show as high as 5 to 10% affected, while one large orchard in Cumberland County had 50% of the trees diseased.

West Virginia: (Giddings) Reported as quite serious in some of the large orchards despite the fact that there was an active campaign against it last year.

Little Peach

Pennsylvania: (Orton) More or less prevalent throughout the state, especially in Columbia and Adams counties.

Winter Injury

Illinois: (Anderson) The past winter was the hardest on peach trees in the history of peach growing in this state. Many farm orchards have all the trees killed. In commercial orchards, well taken care of, the loss has been less, although in the river-bottoms many trees have been lost. The fruit spurs throughout the state were killed by the severe weather.

Ohio: (Selby) Winter injury of peaches was very severe.

Pennsylvania: (Orton) Very severe in the northern and central counties where 25% or more of the trees were severely injured and many killed.

PEAR

Fire Blight caused by Bacillus amylovorus.

Arizona: (Brown) Reported from the Salt River Valley (Phoenix) where it is said to be common.

Arkansas: (Elliott) Less severe than usual on account of dry weather. Some trees have been killed, probably 5% loss.

Georgia: (Berry) Very severe this season. Practically destroying the pear industry of Georgia. Many trees have all new shoots killed. Have not seen a single healthy tree. Many trees in old orchards are dead or dying. Disease more severe in southern part of state. Crop reduced at least 75% by this disease. Little or no effort made at control.

New Mexico: (Werkenthin) In Dona Ana County fire blight is a thing of the past, while in some of the northern counties it is spreading rapidly. Quite bad in Arriba County where it first appeared three years ago. Spreading rapidly in San Juan County. Varieties most affected: Bartlett, King Charles, Clapps Fao and Mammoth Beauty. Varieties not affected: Anjon, Seckel, Garber, Kronce, Kieffer.

Oklahoma: (Learn) Less prevalent about Stillwater than usual. Has not been reported from other parts of the state this year.

Oregon: (Owens) The most dreaded disease of pears in Jackson and Josephine counties; thousands of trees having been killed. The disease is relatively well in hand this season because of drought and strenuous efforts made to control it.

Tennessee: (Essary) Very common but doing less damage than last year.

Texas: (Taubenhaus) Very little this year on account of drought.

Scab caused by Venturia pyrina.

Georgia: (Berry) Quite common over entire state. At least 25% of fruit in local markets show scab.

Oregon: (Owens) Observed in abundance in Lane and Benton counties on scattered trees. Almost non-existant in the great pear growing region of Jackson County.

Brown Rot caused by Sclerotinia cinerea.

Florida: (Market inspection at New York, 2 cars, July 15.) Infection in the two cars 50 and 75%, half of this decay involving from half to entire fruit, the remainder showing in spots from one-half inch to larger spots.

PLUM

Brown Rot caused by Sclerotinia cinerea.

California. (Market inspection at Omaha, part of car, July 9.) Average decay from 1 to 3 plums per crate.

New York: (Chupp) Reported prevalent in nearly every section of the state.

POTATO

Late Blight caused by Phytophthora infestans.

Maine: (Morse) The weather recently has not been favorable to development of the disease.

Maryland: (Temple) Found in five fields of late potatoes in the vicinity of Oakland.

Oregon: (Barss) Of very minor importance this year on account of dry season. Disease probably occurs sparingly along coast.

Pennsylvania: (Orton) Present in Somerset and Tioga counties. If weather remains cool and wet considerable damage may be expected during September.

West Virginia: (Giddings) Seen in two fields out of four visited in Tucker County.

Wisconsin: (Wright, August 31.) Now present in eleven fields in Barron County.

Early Blight caused by Alternaria solani.

Arizona: (Brown) Slight loss reported in Coconimo County.

Colorado: (MacMillan) Slight infection in the neighborhood of Greeley.

Maine: (Morse) Not reported as of economic importance.

Maryland: (Temple) General and has caused considerable loss.

Oregon: (Barss) Has been found in a few fields; on the average it is doing very little damage.

Pennsylvania: (Orton) Early blight has begun to show on late potatoes and in some counties appears to be seriously reducing the crop. Twenty percent loss is reported in Susquehanna County, 15% in Berks and Warren counties, and 10% in Washington and Lancaster counties.

PLANT

Brown Rot caused by Sclerotinia cinerea

California. (Merced) Inspection at Combs, north of Ser, July 9.) average decay 1 to 3 plums per crate.

New York (Chemung) Reported prevalent in nearly every section of the state.

PECANS

Little blight caused by Phytophthora infestans.

Maine (Aroos.) The variety recently has not been trustworthy to development of the disease.

Maryland (Tempie) Notes injury during of July 24 notices in the vicinity of Centre.

Oregon (Marion) Of very minor importance this year on account of dry weather. Disease recently caused considerable loss.

Pennsylvania (Potter) Present in Allegheny and Tioga counties. It neither caused any loss or considerable injury may be expected during September.

West Virginia (Jefferson) Seen on two fields out of four visited in Summer County.

Tennessee (Wilson) Reported 5%. To be present in eleven fields in Perry County.

Leaf blight caused by Alternaria tenuis.

Arizona (Graham) Slight loss reported in Cochise County.

California (Woodland) Slight infection with exception of Orchard.

Maine (Aroos) Not reported as of economic importance.

Maryland (Temple) General and has caused considerable loss.

Oregon (Marion) Has been found in a few fields; on the average it is doing very little damage.

Pennsylvania (Orton) Early blight has begun to show on late potatoes and in some counties appears to be seriously reducing the crop. Twenty percent loss is reported in Susquehanna County, 15% in Berks and Warren counties, and 10% in Washington and Lancaster counties.

West Virginia: (Giddings) Observed in fair amount in Tucker County.

Black Leg caused by Bacillus phytophthorus.

Maine: (Morse) Black leg appears to be decreasing each year in Maine.

Oregon: (Barss) Was frequently observed earlier in the season but is only occasionally found now. Most of the plants affected by black leg died in July. The highest amount found in any one field was 2%.

West Virginia, Tucker County: (Giddings, August 26.) Serious outbreak of black leg observed in four fields where diseased seed was used, at least 5% of the plants dead or dying. In some large areas in fields 25% to 75% of the plants were affected.

Stem Rot caused by Rhizoctonia solani.

Maine: (Morse) About the usual amount of Rhizoctonia injury.

Maryland: (Temple) Rhizoctonia is general.

Oregon: (Barss) Fields in which 30% of the plants showed serious infection of Rhizoctonia have been observed, but in general the disease is less abundant this year than in former years, probably due to more careful rotation and to general practice of dipping seed potatoes in mercuric chloride.

Russet Scab caused by Rhizoctonia solani.

California: (Market inspection at Houston, 1 car, July 29.) Russet scab affecting 25% of tubers, covering from 1/3 to 3/4 surface of affected tubers.

Louisiana: (Market inspection at Indianapolis, 1 car, July 16.) 25% russet scab.

Missouri: (Market inspection at Chicago, 1 car, Aug. 1.) An occasional potato showing bad russet scab.

Virginia: (Market inspection at Chicago, 1 car, July 30.) An occasional tuber showing bad russet scab.

Scab caused by Actinomyces chromogenus.

Alabama: (Market inspection at Chicago, 1 car, July 6.) 5% scab noted.

Arkansas: (Market inspection at Kansas City, 1 car, July 13.) 5% bad scab.

California: (Market inspection at Chicago, Dallas and Kansas City, 5 cars, July 11-18.) Average scab infection 3%, mostly bad.

Delaware: (Market inspection at Pittsburgh, 1 car, July 23.) 3% of tubers with at least 10% of surface covered with scab.

Illinois: (Market inspection at Detroit and Indianapolis, 4 cars, July 5-Aug. 9.) Scab ranged from 3 to 20%, in all cars infection being deep.

Kentucky: (Market inspection at Jacksonville, 1 car, Aug. 8.) 14% scab noted.

Louisiana: (Market inspection at Chicago, Cincinnati, Detroit and Pittsburgh, 6 cars, July 9-24.) Average infection 10%, in most cases the tubers deeply affected.

Mississippi: (Market inspection at Detroit, 1 car, July 6.) Deep scab 2-3%.

Missouri: (Market inspection at Chicago, Detroit and Indianapolis, 4 cars, July 9-Aug. 6.) In 3 cars scab infection was deep, the other car showing tubers covered with scab but affecting appearance only.

Texas: (Market inspection at Chicago, Dallas and Kansas City, 3 cars, July 6-31.) Each car showing 5% bad scab.

Virginia: (Market inspection at Buffalo, Chicago, New York and Pittsburgh, 7 cars, July 18-31.) Average infection in 6 cars 4%, 1 car showing as high as 20% scab.

Washington: (Market inspection at Kansas City, 1 car, July 31.) From 6-8% scab.

Rots (Bacterial).

Alabama: (Market inspection at Chicago, Detroit and Indianapolis, 5 cars, July 2-6.) Slimy soft rot, probably caused by organisms of the Bacillus carotovorus type, ranged from 5 to 17%, one car showing a few sacks with from 50 to 75% of tubers badly decayed.

Arkansas: (Market inspection at Kansas City, 1 car, July 13.) Slimy soft rot ranged from 5 to 40%.

Colorado: (Market inspection at Kansas City, 1 car, June 25.) Slimy soft rot 29%.

Florida: (Market inspection at Detroit and Jacksonville, 3 cars and 56 sacks, July 9, Aug. 6-7.) Bacterial rot in 3 cars 31, 32 and 55%. Slimy soft rot was found on 33% of stock in 1 car.

Georgia: (Market inspection at Atlanta and Chicago, 3 cars, July 6-Aug. 10.) Bacterial soft rot ranged from 5 to 50%, average 35%.

Illinois: (Market inspection at Chicago, Detroit, Indianapolis and Jacksonville, 5 cars, July 5-Aug. 9.) Slimy soft rot present in 4 cars, running from 5 to 50%. In car inspected at Jacksonville 7% bacterial decay was noted.

Louisiana: (Market inspection at Chicago, Cincinnati, Detroit, Indianapolis, New Orleans, and Pittsburgh, 14 cars, July 6-30.) Slimy soft rot was present in 12 cars, 8 of these cars averaging about 7%, the other 4 cars showing from 50 to 90% bad bacterial decay.

Maryland: (Market inspection at Baltimore, 1 car, Aug. 13.) Bacterial soft rot 7%, scattered throughout car.

Mississippi: (Market inspection at Indianapolis, 1 car, July 5.) From 5 to 10% slimy soft rot present.

Missouri: (Market inspection at Chicago and Indianapolis, 6 cars, Aug. 1-9.) Average infection from slimy soft rot 10%, one car with most of stock affected to the extent of 40 to 50%.

Nebraska: (Market inspection at Jacksonville, 4 cars, Aug. 5.) The 4 cars averaged 20% bacterial decay.

New Jersey: (Market inspection at Baltimore, 1 car, Aug. 13.) 12% bacterial soft rot scattered throughout car.

North Carolina: (Market inspection at Indianapolis, 1 car, July 12.) Slimy soft rot 3%.

Oklahoma: (Market inspection at Kansas City, 2 cars, July 5-9.) Slimy soft rot in the 2 cars 25 and 40% respectively.

Texas: (Market inspection at Chicago and Kansas City, 4 cars, June 25-July 31.) Slimy soft rot varied from 10 to 55%.

Virginia: (Market inspection at Chicago, Indianapolis and Pittsburgh, 7 cars, July 5-26.) Average slimy soft rot infection in 5 cars about 8%. In 2 cars inspected at Pittsburgh bacterial decay was found in varying amounts.

Rot caused by Fusarium sp.

Alabama: (Market inspection at Detroit, 1 car, July 5.) Very heavy infection noted in this car of potatoes.

Arkansas: (Market inspection at Chicago, 1 car, July 8.) Average 12%.

California: (Market inspection at Kansas City, 1 car, July 16.) From 2 to 4% Fusarium tuber rot noted.

Illinois: (Market inspection at Chicago, Detroit, Indianapolis and Jacksonville, 6 cars, July 5-10.) Average Fusarium infection about 8%, some of dry type.

Kentucky: (Market inspection at Jacksonville, 1 car, Aug. 8.) Tuber rot 10%.

Louisiana: (Market inspection at Chicago and Detroit, 8 cars, July 8-24.) Average infection 5%.

Mississippi: (Market inspection at Chicago and Detroit, 2 cars, July 6 & 23.) 10% Fusarium tuber rot noted.

Missouri: (Market inspection at Chicago, Detroit and Kansas City, 3 cars, July 9-Aug. 12.) Decay ranged from 4 to 12%.

South Carolina: (Market inspection at Buffalo, 15 barrels, June 13.) Fusarium soft rot totally destroying 40% of tubers.

Texas: (Market inspection at Chicago, 2 cars, July 8, 9.) A slight amount of tuber rot in each car.

Virginia: (Market inspection at Buffalo and Chicago, 4 cars, July 6-31.) Fusarium decay of both dry and wet types found in all cars, varying from 4 to 11%.

Fusarium Wilt caused by Fusarium sp.

Colorado: (MacMillan) Twenty percent injury observed in some fields about Greeley.

Maryland: (Temple) Considerable damage observed in many fields. Sometimes as high as 3% loss.

Oregon: (Barss) Fusarium wilt is apparently not a serious factor in Oregon, being encountered only on scattered plants.

Pennsylvania: (Orton) Much diseased seed was planted this year and everywhere a considerable percentage of the plants have died prematurely. Not less than 5% of the crop in the state has been destroyed by wilt through planting infected seed. The loss in some counties runs as high as 20 and 30%.

Other Diseases.

Maine: (Morse) Have seen no fields severely affected by leaf roll, but an occasional field has been observed showing some of the types of leaf roll described by Quanjer and by Wortley.

Oregon: (Barss) Verticillium Wilt caused by Verticillium albo-atrum is commonly encountered on potatoes in Oregon. Some fields showing as high as 10% infection. In the potato inspection and certification work this year Verticillium wilt is encountered more frequently than any other one disease.

Mosaic (cause unknown).

Maine: (Morse) Mosaic appears very prevalent, especially on Green Mountain, but is much less in evidence than a few weeks ago.

Oregon: (Barss) Mosaic is very rare this year.

SWEET POTATO

Stem Rot and Wilt caused by Fusarium batatatis and F. hyperoxysporum.

Arkansas: (Ensign in C. & T. News Notes No. 21.) Wilt is present in practically all fields in the vicinity of Magnolia.

Louisiana: (Edgerton) Stem rot is becoming scattered over the state. Until the past few years people have in general used their own seed for planting with the results that stem rot did not gain a foothold, but during the past year or so considerable of the disease has been brought in from eastern states on slips, seeds, etc. It is now developing very seriously in a number of places.

Maryland: (Temple) Stem rot is our worst disease of sweet potato. It occurs generally over the sweet potato growing sections of the state but is most severe in those sections which are in the habit of getting their seed stocks or plants from Delaware. One field had to be reset the third time, owing to badly infected seed stock.

(Ridgeway in C. & T. News Notes No. 18.) Sweet potato fields near Salisbury, Maryland, show 30% injury due to stem rot.

New Jersey: (Cook) Very abundant and the cause of heavy losses.

Oklahoma: (Sherwood in C. & T. News Notes No. 21.) Many sweet potato fields in southeastern Oklahoma were badly damaged by stem rot and black rot. One patch contained at least 20% dead plants and at least 40% were affected. In these counties both slips and sweet potatoes were obtained from Nashville and Fort Smith, Arkansas and in every field in which such slips or seed were used, both the stem rot (wilt) and black rot were found.

South Carolina: (Seal) Stem rot has been found in a number of fields but is causing no serious losses.

Texas: (Taubenhaus) Stem rot is not prevalent.

Virginia: (Fromme) Found in abundance on the eastern shore, also reported from King George County where it is causing considerable trouble.

Foot rot caused by Plenodomus destruens.

Maryland: (Temple) Foot rot is local and does not cause any extensive loss.

Virginia: (Fromme) Found in abundance on the eastern shore.

Black rot caused by Sphaeronema fimbriatum.

New Jersey: (Cook) Very abundant.

Oklahoma: (Sherwood in C. & T. News Notes Nos. 20 and 21.) Prevalent in many parts of Oklahoma, especially in those which used imported seed.

South Carolina: (Seal) Black rot seems to be more common than usual in the fields this year and growers will have trouble with this disease in storage this fall.

Texas: (Taubenhaus) Serious in many places, causing 1% loss.

Virginia: (Fromme) Found in abundance in the eastern shore and also reported from Chesterfield County.

White Rust caused by Albugo ipomeae-pandurane.

Louisiana: (Edgerton) Occurs to some extent but the injury is small.

Maryland: (Temple) White rust is general but appears to cause very little loss.

New Jersey: (Cook) None reported or collected to date. Usually present in the past but of no importance.

Texas: (Taubenhaus) Unimportant.

Virginia: (Fromme) Reported from Henrico County but not serious.

Leaf spots caused by Phyllosticta batatas and Septoria bataticola.

Alabama: (Peltier) Both leaf spots are common but cause no particular damage.

Louisiana: (Edgerton) Leaf spots occur to some extent but the injury is small.

Mississippi: (Fields) The leaf spot due to Phyllosticta batatas has been found generally over the state. It appears to be doing little damage.

South Carolina: (Seal) Both leaf spots are frequently found but causing little if any damage.

Texas: (Taubenhaus) Leaf spots unimportant.

Soft Rot caused by Rhizopus nigricans.

Alabama: (Market inspection at Cincinnati and Kansas City, 2 cars, Aug. 9, 10.) About 10% of hampers in 1 car showed from 2 to 12 decayed tubers each; 5% bad decay in the other car.

Other Diseases.

Mississippi: (Fields) Dry rot due to Diaporthe batatatis was observed in fields in the vicinity of Ocean Springs and Biloxi. In every case observed, the variety affected was Porto Rico. The vines were killed in almost every instance and from 2 to 5% infection was observed.

Texas: (Taubenhaus) Texas root rot caused by Ozonium omnivorum is very serious, causing 10% loss. Sclerotium rolfsii also causes considerable damage. The loss from drought this year will amount to 50% of the crop.

TOMATO

Fusarium Wilt caused by Fusarium lycopersici.

Alabama: (Armstrong in C. & T. News Notes No. 2p.) The successful growing of tomatoes in gardens of this state is very limited due to the general prevalence of Fusarium wilt.

Arkansas: (Elliott) Fusarium wilt is common and severe in many localities. Resistant varieties are being introduced.

California: (Milbrath in C. & T. News Notes No. 17.) Fusarium wilt caused a loss of 60 to 90% in large tomato fields in the vicinity of Hayward and San Jose.

Colorado: (Robbins) Wilt reported from Fremont County; losses slight.

Louisiana: (Neal in C. & T. News Notes No. 17.) The loss of 150 acres of tomatoes at Avery Island, Louisiana, is reported.

Maryland: (Temple) Fusarium wilt is more prevalent this year than in former years. It is taking a heavy toll wherever tomatoes have been grown on a farm for several years in succession. Its principal center is Dorchester County. Fairly good control is being obtained through wilt resistant strains. About 1000 acres of these strains are being grown this year.

Minnesota: (Bisby) Fusarium wilt has not been definitely located in Minnesota.

New Jersey: (Cook) Very abundant in one section of the state. Has not yet been found in other sections.

New Mexico: (Werkenthin) Fusarium wilt is prevalent and very destructive, 50 to 100% in many fields being affected with a loss of 50 to 60% of the crop. Most serious tomato disease in this region. Government wilt resistant seed has been obtained but the plants showed the disease as badly as those from home grown seed.

Ohio: (Selby) Fusarium wilt is very severe in nearly all established early market tomato districts. Somewhat less serious this year than normally. Breeding of Fusarium resistant strains of tomatoes is progressing satisfactorily at this station in cooperation with the Department of Agri-

West Virginia: (Giddings) More abundant than usual.

Septoria Blight caused by Septoria lycopersici.

Colorado: (Robbins) Prevalent in northern Colorado. Loss in some localities amounts to 3 to 5%. Disease has spread considerably during the period of August 10 to 25. This disease was observed in Colorado for the first time this year.

Maryland: (Temple) An extensive survey of the tomato fields of Maryland shows that Septoria blight will probably take one half of the crop. Extensive spraying projects on the eastern shore this year are giving fairly good control at the present time.

Minnesota: (Bisby) Serious in many fields, particularly in the Twin City region, since the latter part of July. Spraying is not common.

New Jersey: (Massey in C. & T. News Notes No. 17.) Present in practically every tomato field in New Jersey.

New Mexico: (Werkenthin) Reported in considerable amounts in fields in Dona Ana County.

North Carolina: (Jehle in C. & T. News Notes No. 20.) Very prevalent in Catawba County, also very troublesome in Davidson County where it caused premature drying of the vines in almost every patch of tomatoes visited.

Ohio: (Selby) Has developed less than normal this year but in a conspicuous manner in early market districts.

Pennsylvania: (Orton) Reported from Berks, Lehigh and Schuylkill counties. Moderate infection in Luzerne County, but doing no serious damage.

Virginia: (Fromme) As usual the most prevalent and generally destructive tomato disease. One field of John Baer was completely defoliated and produced only 25 bushels to the acre.

West Virginia: (Giddings) Less prevalent than has been noted at this time of the year for several seasons.

Bacterial Wilt caused by Bacterium solanacearum.

Colorado: (Robbins) Reported from several localities; losses slight.

Maryland: (Temple) None observed thus far this year.

New Jersey: (Cook) One doubtful record.

North Carolina: (Jehle in C. & T. News Notes No. 20.) Very prevalent in Catawaba County.

culture.

Pennsylvania: (Orton) Generally prevalent. The most serious case known is in Luzerne County where two large growers have lost from 30 to 35% of their plants, 85 to 95% of all plants grown being affected. In Philadelphia and Berks counties there is a 10 to 15% loss.

Tennessee: (Essary) Common in all sections, the loss ranging from 5 to 100%. Many gardens have been abandoned for tomato growing.

Utah: (Hill) Heavy loss in certain early tomato sections of the state this season. Several fields have shown as high as 20% infection. The disease does not occur so seriously in late tomatoes grown for the canneries.

Virginia: (Fromme) Reported from four counties with losses varying between 5 and 20%.

Blossom End Rot (Physiological).

Arkansas: (Elliott) Very severe this year; causing a loss of about 20% of the crop.

Iowa: (Melhus) Prevalent only on early settings.

Maryland: (Temple) Very severe; causing considerable loss in many parts of the state , especially in Worcester County.

Minnesota: (Bisby) Present but not yet as serious as usual.

Mississippi: (Fields in C. & T. News Notes No. 20.) The most important disease this season in the large tomato fields about Crystal Springs.

New Jersey: (Cook) Very abundant.

Ohio: (Selby) Much more prevalent than normally. Apparently associated with the drought conditions prevailing. Commonly associated also with *Alternaria solani* as studied by Van Pelt.

Oregon: (Barss) A few specimens have been received from different parts of the state and the trouble is as usually associated with insufficient soil moisture during the development of the fruit.

Pennsylvania: (Orton) Very prevalent on certain varieties like Stone and Bonny Best. Much worse where tomatoes have been grown on heavily fertilized soil. Average infection about 8%.

Tennessee: (Essary) Tomatoes have been remarkably free from blossom end rot this season.

Utah: (Hill) Present throughout tomato growing districts, but is much worse on some fields than on others. Not over 1% of the crop is affected. This disease appears to be an irrigation problem.

West Virginia: (Giddings) More abundant than usual.

Septoria Blight caused by Septoria lycopersici.

Colorado: (Robbins) Prevalent in northern Colorado. Loss in some localities amounts to 3 to 5%. Disease has spread considerably during the period of August 10 to 25. This disease was observed in Colorado for the first time this year.

Maryland: (Temple) An extensive survey of the tomato fields of Maryland shows that Septoria blight will probably take one half of the crop. Extensive spraying projects on the eastern shore this year are giving fairly good control at the present time.

Minnesota: (Bisby) Serious in many fields, particularly in the Twin City region, since the latter part of July. Spraying is not common.

New Jersey: (Massey in C. & T. News Notes No. 17.) Present in practically every tomato field in New Jersey.

New Mexico: (Werkenthin) Reported in considerable amounts in fields in Dona Ana County.

North Carolina: (Jehle in C. & T. News Notes No. 20.) Very prevalent in Catawba County, also very troublesome in Davidson County where it caused premature drying of the vines in almost every patch of tomatoes visited.

Ohio: (Selby) Has developed less than normal this year but in a conspicuous manner in early market districts.

Pennsylvania: (Orton) Reported from Berks, Lehigh and Schuylkill counties. Moderate infection in Luzerne County, but doing no serious damage.

Virginia: (Fromme) As usual the most prevalent and generally destructive tomato disease. One field of John Baer was completely defoliated and produced only 25 bushels to the acre.

West Virginia: (Giddings) Less prevalent than has been noted at this time of the year for several seasons.

Bacterial Wilt caused by Bacterium solanacearum.

Colorado: (Robbins) Reported from several localities; losses slight.

Maryland: (Temple) None observed thus far this year.

New Jersey: (Cook) One doubtful record.

North Carolina: (Jehle in C. & T. News Notes No. 20.) Very prevalent in Catawaba County.

Ohio: (Selby) Probably less prevalent than usual.

Tennessee: (Essary) Reported in several sections.

Virginia: (Fromme) Caused a loss of 30% on three acres in Roanoke County.

West Virginia: (Giddings) Severe in some localities toward the southern end of the state.

Early Blight or Nailhead Spot caused by Alternaria solani.

Iowa: (Melhus) Not common.

Minnesota: (Bisby) Infrequent as yet.

New Jersey: (Cook) Very abundant throughout the state.

Ohio: (Selby) Rather more than normally prevalent.

Pennsylvania: (Orton) Serious in the Wilkes-Barre trucking section, where some varieties show 90% leaf infection.

Leaf Mold caused by Cladosporium fulvum.

Minnesota: (Bisby) Causes some loss under glass.

Pennsylvania: (Orton) Has not been serious on out of door tomatoes.

Mosaic.

Minnesota: (Bisby) Not serious out of doors but gave much trouble earlier in greenhouses.

Pennsylvania: (Orton) Not more prevalent than usual. The filiform stage is always the most serious one. Is present in Luzerne and Erie counties in 1% of the crop.

Sun Scald.

Maryland: (Temple) Sun injury to tomatoes has been greater this year than for many years. Approximately 1% of the fruits have been scalded and leaves show considerable tip burn in many places due to drought and exceedingly hot weather.

Pennsylvania: (Orton) More prevalent than ever before. An average of 2 to

3% of the fruit affected according to conservative estimates.

Virginia: (Fromme) Severe in eastern Virginia. It is directly related to loss of foliage from Septoria blight.

Wisconsin: (Vaughan) The intense heat and bright sun of August 1 to 12 blistered much of the fruit not protected by foliage.

Other Diseases.

Oregon: (Barss) The largest amount of trouble reported to this station has been from wilt troubles, probably due to vascular parasites and disturbances due to Rhizoctonia. Fusarium has been found, but species not determined.

Pennsylvania: (Orton) Anthracnose fruit spot is appearing at State College, August 13.

Virginia: (Fromme) Late blight due to Phytophthora infestans is reported from Dickenson County only, where it is prevalent in almost every home garden except a few that have been sprayed.

Fruit Rots caused by various organisms.

Missouri: (Market inspection at Ft. Worth, 1 car, Aug. 1.) An occasional tomato affected with rot caused by Phoma destructiva.

Pennsylvania: (Market inspection at Buffalo, 7 cars, Aug. 5.) Extremely heavy bacterial soft rot in all cars, averaging at least 80%.

Tennessee: (Market inspection at Atlanta, Chicago and New York, 8 cars, July 3 to 17. An average decay of 5%, in some cases running as high as 30%, caused by Phoma destructive was found in 3 cars inspected at Chicago and New York.

From 25 to 30% watery soft rot, caused by Rhizopus nigricans, was found in 1 car at New York.

3 cars inspected at Chicago and New York show an average of 2% decay caused by Fusarium sp.

Bacterial soft rot was present in 33% of a carload inspected at Atlanta.

Texas: (Market inspection at Pittsburgh, Buffalo and New York, 5 cars, June 24 to July 24.) 14 and 18% buckeye rot, caused by Phytophthora terrestria, was found in 2 cars at Buffalo.

Inspection of 2 cars at New York and Pittsburgh revealed 5% decay caused by Rhizopus nigricans in 1 car and 2% in the other.

5% fruit rot caused by Fusarium sp. was found in 1 car at Pittsburgh.

WATERMELON

Stem end rot caused by Diplodia sp.

Arkansas: (Elliott) Occurs in some sections. Not important this year.

Florida: (Market inspection at Baltimore and Kansas City, 3 cars, July 8-19.) Average stem end rot 20%.

Georgia: (Market inspection at Baltimore, Chicago, Indianapolis, New Orleans and Omaha, 14 cars, July 15-Aug. 10.) Average infection 25%, in 1 car 60% of melons being worthless from this decay.

Illinois: (Market inspection at Buffalo, 2 cars, June 25.) Stem end rot in the 2 cars 35 and 37%, in one car the loss in food value being 50%.

Indiana: (Market inspection at Buffalo, Detroit and Indianapolis, 13 cars, July 3-Aug. 9.) Average infection 25%, some cars running as high as 100%, others as low as 8% infection.

Louisiana: (Edgerton) Only occasionally seen. Not at all serious and is only a field trouble here.

Maryland: (Temple) Not prevalent.

Missouri: (Market inspection at Des Moines and Omaha, 5 cars, July 3-Aug. 8.) About 18% stem end rot noted.

Mississippi: (Fields) Observed at Ocean Springs, Pascagoula and Columbia.

North Carolina: (Market inspection at Baltimore, 3 cars, July 30-Aug. 7.) Stem end rot in early stage in each car, averaging 8%.

Ohio: (Market inspection at Cincinnati, 1 car, Aug. 5.) Stem end rot associated with blossom end rot in early stage on 3% of melons.

South Carolina: (Seal) Common this season destroying 5 to 10% of the melons.

(Market inspection at Baltimore, 3 cars, Aug. 1-9.) Stem end rot in the three cars 11, 14 and 23%.

Tennessee: (Essary) Has done probably 10% damage to the crop.

Texas: (Market inspection at Kansas City, 1 car, Aug. 7.) About 30% complete decay, 20% slight.

Fusarium wilt caused by Fusarium vasinfectum.

Maryland: (Temple) Found only locally and does not cause any great loss.

Mississippi: (Fields) Very serious in many regions.

New Mexico: (Werkenthin) Wilt is the only disease of watermelons found in New Mexico. Valencia county reports a loss of from 10 to 100%, the disease first appearing about July 30th after the first heavy rains. The disease is bad this year in Luna County.

South Carolina: (Seal) Very little wilt this season.

Tennessee: (Essary) There have been scattered cases of wilt, in a few instances the loss being serious.

Texas: (Taubenhaus) Very serious. 30% loss.

Virginia: (Fromme) Reported from Franklin and Charlotte counties.

Anthracnose caused by Colletotrichum lagenarium.

Florida: (Market inspection at Baltimore and Kansas City, 3 cars, July 8-19.) In two cars melons affected showed anthracnose spots in early stages; the other car with 93% of contents affected, mostly in advanced stage.

Georgia: (Market inspection at Baltimore, Chicago, Indianapolis, New Orleans and Omaha, 10 cars, July 15-Aug. 10.) Anthracnose ranged from 5 to 90%, mostly in pink spore stage.

Illinois: (Market inspection at Buffalo, 1 car, June 25.) Anthracnose in early stage present on 9% of melons.

Indiana: (Market inspection at Buffalo, Detroit and Indianapolis, 10 cars, July 3-Aug. 9.) Early stage of anthracnose present on a large number of melons in each car although only a few were actually decayed by it.

Louisiana: (Edgerton) Occasionally reported in the southern part of the state.

Maryland: (Temple) Very prevalent, causing a loss of many carloads of fruit.

Missouri: (Market inspection at Omaha, 1 car, July 3.) 50% of melons decayed more or less by anthracnose, the balance being so badly spotted as to reduce market value.

New Jersey: (Cook) None reported this season but in the past it has been found in this state wherever watermelons are grown.

North Carolina: (Market inspection at Baltimore, 3 cars, July 30-Aug. 8.) Infection in the three cars 16, 78 and 87%, in the latter two cars the anthracnose being well advanced.

Ohio: (Market inspection at Cincinnati, 1 car, Aug. 5.) Occasional melon slightly spotted with anthracnose.

South Carolina: (Seal) Present in many places. It seems to be much worse in the upper part of the state.

(Market inspection at Baltimore, 4 cars, Aug. 9.) More than 50% melons in three cars affected with anthracnose, mostly in advanced pink spore stage, the other car showing 10% infection in early stage.

Tennessee: (Essary) Not seen this season.

Blossom end rot.

Arkansas: (Elliott) The most important disease of watermelons in Arkansas this year.

Maryland: (Temple) Quite severe, causing a loss of from 2 to 5%.